





THE

Leland Stanford.....
* * * Junior University.

PALO ALTO, SANTA CLARA CO., CALIFORNIA.

CIRCULAR OF INFORMATION.

No. 3.

Menlo Park, Cal.,

1891.

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THE
LELAND STANFORD JUNIOR UNIVERSITY,

Palo Alto, Santa Clara County, Cal.

"THE BENEFICENCE OF THE CREATOR TO MAN ON EARTH,
AND THE POSSIBILITIES OF HUMANITY ARE ONE
AND THE SAME." (LELAND STANFORD.)

STATEMENT OF ENTRANCE REQUIREMENTS AND OF OTHER MATTERS
PRELIMINARY TO THE ORGANIZATION OF THE WORK
OF INSTRUCTION FOR THE FIRST YEAR
OF THE UNIVERSITY

MENLO PARK, CAL.,
MAY 5, 1891.

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PURPOSES OF THE UNIVERSITY.

The charter of the Leland Stanford Junior University provides for the establishment of "a University with such seminaries of learning as shall make it of the highest grade, including mechanical institutes, museums, galleries of art, laboratories, and conservatories, together with all things necessary for the study of agriculture in all its branches, and for mechanical training, and the studies and exercises directed to the cultivation and enlargement of the mind."

It is believed that the income arising from the properties conveyed to the University by its founders, the Hon. Leland Stanford and Mrs. Jane Lathrop Stanford, is sufficient to maintain the University on the noble scale contemplated in the charter. The fact is recognized that an institution of learning, however broad its plans and noble its purpose, must be a growth and not a creation, and that if its growth is to be healthy and continuous its beginnings must be modest.

It will be the first aim of the University to secure and to retain the highest talent in its Faculty. Every effort will be made to fill its chairs with men who are successful as teachers, and who are also original investigators in the field of knowledge which they represent. The professors will be amply provided with the books, apparatus, and material needed in instruction or in investigation. The work in the applied sciences (mechanical engineering, civil engineering, etc.), will be carried on side by side with that in the pure sciences and the humanities, and, so far as may be, all lines of work included in the plan of the University will be equally fostered. Men and women will be admitted on equal terms to all the departments of the University.

DEPARTMENTS OF INSTRUCTION.

For the first year, 1891-92, chairs will be established, and instruction, undergraduate and graduate, will be given in the following lines of work, the character and gradation of the instruction to be adapted to the needs of the students in attendance:

1. Mechanical Engineering.
2. Civil Engineering.
3. Mathematics.
4. Physics.
5. Chemistry.
6. Geology.
7. Botany.
8. Zoology.
9. Physiology.
10. Philosophy.
11. Ethics.
12. History.
13. Political Science.
14. English Language and Literature.
15. German.
16. French.
17. Latin.
18. Greek.

A list of the members of the Faculty of the University, with a schedule of the courses of instruction arranged for the first year, will be given in a subsequent circular.

THE SCHOOL YEAR OF THE UNIVERSITY.

The first school year of the University will begin October 1, 1891, and will close on June 15, 1892. It will be divided into two semesters, or half-years, the first ending early in February, the second on Commencement Day. There will be the usual Christmas and Easter vacations.

ENTRANCE REQUIREMENTS.

The work of the University will begin with the Freshman Class. For admission to this class the candidate must be at least sixteen years of age, and must pass a satisfactory examination in the subjects mentioned below. Each candidate must present a certificate of moral character, and students from other colleges or universities must bring certificates of honorable dismissal. *The same entrance examination will admit the student to all courses in the University alike.*

In general a large liberty of substitution will be allowed to the student. The chief desire of the University, in the matter of preparatory studies, is to have its students so trained that they can take up the work offered in the different departments with intelligence and success. The following subjects are included in the entrance requirements:

GENERAL REQUIREMENTS.

1. *English Language.*—An examination on the elements of Rhetoric, together with a short composition to be written upon some subject indicated at the time of examination, and to be drawn from American Literature or History; this composition to be neatly and legibly written, to be clear and concise in expression, and correct in gram-

mar, spelling, and punctuation. No student markedly deficient in English will be admitted to any of the departments of the University.

2. *Arithmetic*, including the Metric System and exclusive of the technical parts of Commercial Arithmetic.

3. *Algebra*, including quadratic equations, factoring, the theory of exponents, ratio and proportion; or the equivalent of McLeilan's Elements of Algebra.

4. *Plane Geometry*.—The work should be an equivalent of Byerly's edition of Chauvenet's Plane Geometry, with the exercises.

5. *Geography*.—The general facts of Physical and Political Geography.

6. *History of the United States*, with the elements of Civil Government.

7. *Latin Grammar; Cæsar*, Gallic War, books I-IV; *Cicero*, the four orations against Catiline; Elements of *Latin Prose Composition*. A fair equivalent in other Latin (or in the courses in applied science, an equivalent in German or French) may be accepted.

8. *Physics*.—The elements of the subject, as obtained from the study of some such work as Gage's Physics, or Peck's Ganot, in connection with experimental work.

SCIENTIFIC REQUIREMENTS.

Besides these subjects, which will be required of all students entering the Freshman Class, an examination must be passed in some one of the following scientific studies, to be chosen by the candidate himself:

9. *Mathematics*.—Algebra, from Quadratic Equations,

the equivalent of the completion of Smith's Treatise on Algebra; Solid Geometry, the equivalent of the completion of Byerly's Chauvenet; Plane Trigonometry, Locke's Trigonometry, or an equivalent.

10. *Freehand Drawing*.—The ability to make a free-hand sketch in outline of simple objects.

11. *Chemistry*.—An elementary but genuine and practical knowledge of Chemistry, including the methods of Qualitative Analysis.

12. *Physiology*.—The elements of human physiology and hygiene, the equivalent of Martin's Human Body, or of Jenkins' Physiology.

13. *Zoology*.—A knowledge of the structure of some common animals, obtainable from laboratory work in connection with Colton's Practical Zoology, or some similar book.

14. *Botany*.—A knowledge of plants and plant structure and development obtainable from experimental work in connection with Bessey's or Campbell's Botany, or some similar work.

REQUIREMENTS IN LANGUAGE OR LITERATURE.

With these the candidate must also be prepared in any two of the following, each of which should be understood to involve a year's serious work:

15. *Latin*.—Cicero, the orations Pro Archia Poeta and Pro Lege Manilia; Virgil's Æneid, books I–VI, with a general knowledge of Latin which the ability to read these books implies, and a corresponding knowledge of Roman History.

16. *Greek*.—Greek Grammar, with Book I of Xenophon's Anabasis.

17. *Greek*.—Books II–IV of Xenophon's Anabasis, or an equivalent in other Greek; Homer, Books I–II; Greek prose composition; Greek History.

18. *French*.—The ability to read ordinary prose at sight.

19. *German*.—The ability to read easy prose or dramatic writing.

20. *English Literature*.—A sound acquaintance with the works of some one author, and a general knowledge of other writers of the same period, the character of the student's previous work to be indicated by himself, and the examination to be based on those works which have been critically studied.

21. *History*.—A good knowledge of General History, with a more special acquaintance with the history of one or more of the leading nations of Europe. A fair amount of exact information is expected, but it is still more important that the student be able to understand and interpret what he reads.

DIVISION OF EXAMINATIONS.

Those candidates who choose to do so may present themselves for examination in the subjects numbered 1–8 of the above list before the opening of the year, and may pass the examinations in the three remaining subjects at a time to be arranged, not later than the beginning of the second year.

PLACES OF EXAMINATION.

Entrance examinations will be held at Palo Alto on the three days (September 28, 29, and 30) preceding the opening of the year.

Special entrance examinations will also be held on the subjects numbered 1-8, in the above list, in the following places :

In Palo Alto (Madroño Hall), July 1 and 2. Conducted by Dr. Orrin L. Elliott.

In Seattle, Washington (Rainier Hotel), August 3 and 4. (Prof. Joseph Swain.)

(In Portland, Oregon (Esmond Hotel), August 6 and 7. (Prof. Swain.))

In Red Bluff, Cal. (Tremont Hotel), August 10 and 11. (Prof. Swain.)

In Los Angeles (Hollenbeck Hotel), July 7 and 8. (Dr. O. L. Elliott.)

In Fresno (Hughes Hotel), July 10 and 11. (Dr. Elliott.)

In Chicago (Tremont Hotel), June 13. (Prof. Fernando Sanford.)

In St. Louis (Lindell Hotel), June 6. (Prof. H. B. Gale.)

SPECIAL STUDENTS.

Students of mature age, who are not candidates for a degree, and who wish to pursue some one study and its related branches, may be permitted to do so without having passed the usual entrance examinations (excepting that in the English language), on recommendation of the professor under whom the specialty is to be taken. Special effort will be made in all departments of the University to meet the needs of teachers.

ADMISSION ON CERTIFICATE.

For the present, the certificates of the Principals of the schools in California, which have been accredited by the authorities of the University of California will be received instead of examinations in the subjects required for entrance to the Freshman Class. In general, also, for the present, the certificates from high schools or academies accredited or commissioned by the universities of other States, will be received instead of examinations in the preparatory subjects which they cover.

ADVANCED STANDING.

Students entering the University from other institutions of recognized collegiate rank will receive the standing to which their examinations or certificates may entitle them.

COURSES OF STUDY.

For the first year, the work in every department will be adapted to the needs of the students actually in attendance. As the work of instruction progresses, courses of study in each department will be planned. There will be no general curriculum of any sort. The unit of organization in the University will be the professorship. Each professor will arrange the studies in his own department in such order as may seem to him best. The courses thus arranged will constitute the major subjects of students in the department in question, and any part of these courses may be taken as minor subjects or as electives by students in other departments.

GRADUATION.

{ The Baccalaureate Degree will be granted to students who have successfully completed the equivalent of fifteen lectures or recitations weekly for four years.) In the general courses (those in which the major subject is in language, literature, philosophy, pure science, etc.) the degree of Bachelor of Arts (A. B.) will be granted. In the courses in applied science (engineering, etc.) the degree granted will be Bachelor of Science (B. S.).

It is further provided (1), that these four years of work, as above indicated, shall include as a *major subject* the entire course given by some one of the professors in the University; and (2), as *minor subjects*, such work in other departments as the professor in charge of the major subject may require as collateral work. In the general courses these major and minor subjects, taken together, will not exceed the equivalent of five recitations weekly for the four years of undergraduate work. In the courses in applied science, the work thus required as major and minor subjects may be the equivalent of ten hours per week for the four years. This is exclusive of the time spent in the laboratory or in shop-work.

It is further provided (3), that each candidate for any degree must take, either as preparatory or as undergraduate work, subjects 9 and 20 (Mathematics and English Literature), and also either 18 or 19 (French or German), as enumerated in the entrance requirements above, with such work in Rhetoric and Composition as may be required.

With these exceptions, all the undergraduate work in all courses will be elective. The student may freely choose for such elective work any subject taught in the University for which his previous studies prepare him.

ADVANCED DEGREES.

To students having already the Bachelor's Degree from an institution of collegiate rank, the degree of Master of Arts (A. M.) will be granted on the completion of an additional year of satisfactory work in residence at the University, accompanied by an approved thesis embodying the results of independent investigation and research.

In the departments of applied science the degrees of Mechanical Engineer (M. E.) and Civil Engineer (C. E.) will be granted at the completion in residence of a year of satisfactory graduate work in the departments indicated by the degree, and on presentation of an approved thesis or report upon some original or important investigation.

The degree of Doctor of Philosophy (Ph. D.) will be granted after the successful completion of an approved course of study of not less than three years after the reception of the Baccalaureate Degree, on the presentation of an acceptable printed thesis which shall embody the results of original research.

No degree will be granted to any person who has not spent at least one year as a student in residence at Palo Alto. No honorary degrees will be given.

GOVERNMENT OF THE STUDENTS.

In the government of the University, the largest liberty consistent with good work or good order will be given to the students. The University is not a reform school; its bounty is intended for the earnest and industrious student, and the indolent or unworthy will not be retained in the institution.

Religious instruction will be provided in the University in accordance with the provision of the charter which "pro-

hibits sectarian instruction, but requires the teaching of the immortality of the soul, the existence of an all-wise and benevolent Creator, and that obedience to His laws is the highest duty of man."

SEAT OF THE UNIVERSITY.

The Leland Stanford Junior University is located on the estate known as Palo Alto, a tract of over 8,000 acres, the gift of Mr. Stanford, and the inalienable property of the institution. Palo Alto lies in Santa Clara county, about thirty miles south of San Francisco, on the Coast Division of the Southern Pacific Railroad. The railway station of Palo Alto is on the estate. The University lies midway between the villages of Menlo Park and Mayfield, at about a mile and a half distance from either. The post-office address of the University is, at present, Menlo Park. On the grounds is the residence of the founders of the University, and a magnificent arboretum, containing a very great variety of shrubs and trees.

The location of the University, on an elevation above San Francisco Bay, and at the base of the foot-hills of the Santa Cruz range, is surpassingly beautiful. The climate is extremely equable. Frosts are rare in winter, and the orange and palm grow in the open air. On the other hand, the heat of summer, tempered by the sea breezes, is never intense.

Before the opening of the University, the twelve buildings constituting the inner quadrangle will be completed. These are built of the buff-colored Almaden sandstone. They are in the Moorish style of architecture, of one story, and connected by a continuous covered passage or colonnade. Two buildings for shop-work in mechanical engineering are also completed, as is the stately building known

as the "Leland Stanford Junior Museum," which is to contain collections in art and collections of antiquities.

Madroño Hall, the dormitory for young men, already finished, is built of stone, four stories high, and with rooms for about 390 persons. The building is provided with elevators, and in each room are electric lights, hot and cold water, steam-heat, and suitable furniture, and with bath-rooms on each floor. No pains or cost has been spared to render it perfectly adapted for its purpose.

Manzanita Hall, a similar building for the use of young women, can not be completed before the spring of 1892.

The Gymnasium will probably be finished early in the year.

EXPENSES OF THE STUDENT.

Tuition in all departments of the University will be free.

Board will be offered at cost in the dormitories. The price fixed at present for board in Madroño Hall is \$3.00 per week. Rooms, with light, heat, and attendance, are offered at the rate of \$1.50 per week for each person if, two occupy one room, \$3.00 per week if occupied by one person, but single occupancy will not be permitted if the rooms are needed by other students. Washing will be charged at cost.

The expenses of the student in Madroño Hall need not exceed \$200 for the year, exclusive of clothing and railway fares.

Board and rooms may also be obtained in Menlo Park and in Mayfield.

The accommodations for young women will, at the first, be limited; but an effort will be made to provide suitable rooms for those who may enter the University.

FELLOWSHIPS AND SCHOLARSHIPS.

A number of Graduate Fellowships for investigators or inventors and Undergraduate Scholarships for deserving students will be offered after the first year. The terms of these will be made known later.

(For further information, address

DAVID S. JORDAN, *President*,

Menlo Park, California.

Address, until June 10, 1891, Bloomington, Ind.)





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